

REQUEST FOR PROPOSAL

Community Monitoring Program for the Resolution Copper Project Sample Collection and Reporting

BACKGROUND

Resolution Copper Company (RC) is undertaking development of a new copper mine near Superior, Arizona. In addition to supporting federal National Environmental Policy Act studies currently underway, RC is conducting a program of testing for a variety of environmental parameters. A major component of this is water quality analyses both to establish a baseline and to monitor any changes that may be related to mine and tailings site development activities.

A group of citizens to help guide and oversee this process has been convened as a subcommittee of the standing Superior Community Working Group (CWG). The CWG is requesting proposals from a third-party consultant to mirror and provide an independent analysis of water quality sampling performed by RC, to verify the accuracy of RC's sampling results and to interpret those results for the benefit of the CWG. RC will pay for this independent analysis but will not direct the work of the third-party contractor nor influence the results or interpretation. The selected contractor must not be currently providing services directly to Resolution Copper Company, BHP Billiton Ltd., or Rio Tinto Group.

The CWG is supported by an independent facilitator, Godec, Randall & Associates Inc. (GRA). GRA is issuing this Request for Proposal on behalf of the CWG and will manage the resulting contract.

STATEMENT OF WORK

On a quarterly basis, Resolution Copper (RC) collects samples for background surface and groundwater data from three sources within the Queen Creek watershed: two wells and one surface impoundment. The following scope outlines the work to be completed by a third-party consultant on behalf of the Superior Community Working Group (CWG) as a part of a new community monitoring program. The purpose of this program is to mirror and provide an independent analysis of water quality sampling performed by RC.



SCOPE OF SERVICES

This scope of work is for services, equipment, sample collection, laboratory testing, and data reporting from three sample locations in the Queen Creek watershed, west of the town of Superior, on a quarterly basis (4 times per year). In addition, the consultant will be required to meet with Community Working Group representatives as specified in this scope of services. The term of this contract is expected to be 14 months, for a total of 4 quarterly sampling events. There will be an option to renew based on performance.

SAMPLE LOCATIONS

Groundwater monitoring and reporting will be completed by the end of each calendar quarter. Three sampling locations will be used:

- 002-2 (shallow monitoring well located in the Queen Creek Wash alluvium basin)
- BTA-01 (shallow gallery well located in the Boyce Thompson Arboretum)
- BTA-02 (surface impoundment located in the Boyce Thompson Arboretum)

See Attachment A for sample locations.

SAFETY REQUIREMENTS

The third-party consultant chosen by the CWG must follow all RC Health, Safety, and Environmental (HSE) requirements. This includes becoming an approved vendor, completing an HSE Action Plan (including submitting the consultant's Safe Work Procedures manual), following RC incident reporting requirements and Emergency Procedures, ensuring all sample equipment is inspected and approved, and wearing the following required Personal Protective Equipment:

- Long Pants & Long Sleeve Shirt
- Appropriate Hiking Boots
- Snake Guards when required
- Safety Gloves
- Chemical Resistant Gloves
- Hard hat



Additionally, the consultant will be required to attend a 4-hour safety training seminar at RC's offices in Superior, AZ prior to starting any work and before the end of calendar year 2016.

SAMPLE EQUIPMENT

A list of equipment required for each quarterly sampling event can be found in Attachment B.

SAMPLE PROCEDURES

All field sampling will be coordinated with and conducted alongside RC personnel but equipment, sample collection, data reporting, and records will be provided by third-party consultant independent of RC. Community Working Group representatives will accompany consultant's personnel in field sampling. Transportation to the sample locations will be required for the consultant and should be arranged through Godec, Randall & Associates prior to the sampling event.

The three sample locations require different sample collection methods. The 002-2 monitoring well is sampled using a Sample-Champ 2" Pump. This sample method requires purging 3x the well volume prior to sample collection. Purge volumes are calculated on location after water levels have been collected. Average purge volume is 180 gallons; purge times range between 45 and 120 minutes. Purge water will be collected in RC-provided totes on surface. Prior to sample collection, field parameters will be collected using handheld YSI (or other similar equipment), as well as visual observations of the surrounding environment.

BTA-01 and BTA-02 locations are sampled using a sterile sample collection device such as a 2.5-gallon bucket with extension stick. A depth to water is taken at BTA-01 and field parameters are recorded from the water collected. The surrounding environment visual observations are recorded for both locations.

ANALYTICAL REQUIREMENTS

Samples will be analyzed for the list of parameters found in **Attachment C**. RCM will inform the contractor if there is a change to the list of analyses currently performed.



LABORATORY AND DATA MANAGEMENT

The consultant will select a local EPA- and Arizona-certified laboratory to use for this project. The selected laboratory must not be currently providing services directly to Resolution Copper Company, BHP Billiton Ltd., or Rio Tinto Group. Examples of suitable labs include Legend Technical Services and Turner Labs, Inc. The consultant will work directly with the selected lab to ensure all samples are preserved, transported, and run according to acceptable methods. The consultant will also be responsible for delivery of samples to the lab and for the Chain of Custody. American National Standards Institute Chain-of-Custody procedures must be followed.

The lab will return all results to the consultant only; RC will not receive lab results.

REPORTING & CONSULTATION

The consultant is responsible for interpretation of the data and for providing a detailed report, along with interpretation of results, to present to the CWG on a quarterly basis. Records of all field parameters taken must be included in the quarterly report along with the equipment's calibration records.

The consultant is requested to meet with CWG representatives prior to undertaking the field sampling program, before the end of calendar year 2016, and to hold an additional meeting with the CWG after the first quarterly sampling to interpret and explain results. These two meetings will take place in Superior, AZ.

All data collected will be shared among the parties, and will be publicly available. If major differences in results occur, consultation among the parties will be required to determine and document the reasons.

CONTRACT AGREEMENTS & MANAGEMENT

By submitting a proposal for this work, the consultant agrees to the following provisions. By selecting a consultant to perform the work, the Superior Community Working Group and Resolution Copper (RC) agree to the following provisions.



The contract for these services will be under the direction of the Superior Community Working Group (CWG), as represented by its independent facilitator, Godec, Randall & Associates. The analyses described here will be prepared by the contractor under the direction of the CWG. It is understood by RC and the CWG that the analyses will be prepared by the consultant according to the provisions of the Request for Proposal. The consultant will be paid directly by RC, via issuance of a purchase order. The consultant will be chosen to serve under the direction and control of the CWG. The consultant's work product will be considered CWG work product owned by the CWG.

Meetings among the CWG, RC, and the consultant to exchange data or other factual information, and updating the status of the analysis, will occur as needed throughout the term of this contract. Meetings may be held in person or via telephone conference.

The CWG will:

- Select a qualified consultant based on past relevant experience, technical competence, availability to perform work, cost and other factors.
- Coordinate with the consultant throughout the analysis as needed to answer questions.
- Provide direction to the consultant for preparing and maintaining documents regarding the analysis.
- Create and designate the official project record for the analysis.
- Receive the consultant's invoices and forward them to RC for payment.

PROPOSAL REQUIREMENTS

PROPOSAL CONTENTS

Please include the following items in the proposal to perform this work:

- A brief description of the consultant's company
- Consultant's All Injury Frequency Rate
- Designation of a certified testing laboratory
- Brief resumes for key personnel
- 3 client references
- Bid to perform the work described (along with any relevant assumptions)



PROPOSAL SUBMITTAL

Proposals must be received by 4:00 PM on Tuesday, November 15, 2016. Electronic submittals should be sent to:

debra@godecrandall.com

Mailed proposals (1 copy), if preferred, can be sent to:

Godec, Randall & Associates Inc. 3944 N. 14th Street Phoenix, AZ 85014

ATTACHMENTS

Attachments are located on the following pages.

Attachment A: Sample Locations Attachment B: Sampling Equipment Attachment C: Analytes List





Attachment A – Sample Locations



Attachment B – Sample Equipment

Sample Bottle and Preservation Requirements per Location (x3 locations):

3-1 Liter Unpreserved HDPE Bottles
1-250 mL H2SO4 preserved HDPE bottle. 1-500 mL HNO3 preserved HDPE bottle. 1-500 mL NaOH
Bottle
1-500 mL Unpreserved HDPE Bottle 1-50 Micron Filter
1-50 mL Syringe
1-500 mL Unpreserved "Field Bottle"

Sample Collection Equipment

50 ft rope or cord capable of lifting 10 KG 50 ft Sounder Liquinox (or other sanitizing solution) 2-2.5 Gallon Empty Clean Buckets 5 Gallons of Distilled Water YSI (or other field parameter surveying device) capable of rendering readings for: Specific Conductance pH Temperature Sample-Champ XL 2" Pump Power source for Pump Sample-Champ XL Control Box 50 ft roll 3/8 Hose & Roll-Away Mechanism. Cooler & ice



Attachment C – Analytes List

			Minimum
Parameter	Units	Method	Detection Limit
Metals (dissolved)			
Antimony	mg/L	EPA 200.8	0.0048
Arsenic	mg/L	EPA 200.8	0.08
Barium	mg/L	EPA 200.7	1.6
Beryllium	mg/L	EPA 200.7	0.0032
Cadmium	mg/L	EPA 200.8	0.004
Copper	mg/L	EPA 200.7	
Cyanide, free	mg/L	EPA 335.2	
Lead	mg/L	EPA 200.8	0.04
Mercury	mg/L	EPA 245.1	0.0016
Nickel	mg/L	EPA 200.7	
Nitrate as N	mg/L	EPA 300.0	
Nitrite as N	mg/L	EPA 300.0	
Nitrate/Nitrite as N	mg/L	EPA 353.2	
Fluoride	mg/L	EPA 300.0	4.0
Selenium	mg/L	EPA 200.8	0.04
Thallium	mg/L	EPA 200.8	0.0016
TDS	mg/L	SM 2540 C	
Chloride	mg/L	EPA 300.0	
Sulfate	mg/L	EPA 300.0	
Radionuclides			
Gross Alpha	pCi/L	600/00-02	
Radium 226+228	pCi/L	903.1, 904	
(dissolved)			